CHESAPEAKE BAY PROGRAM TRADING AND OFFSETS WORKGROUP MEETING MAY 16^{TH} , 2012

DECISIONS AND ACTION ITEMS

ACTION: George Onyullo, DDOE, or Moshin Siddique, DC Water, will be contacted regarding participation on the review panel.

ACTION: Face to face meeting with EPA staff and review panel participants will be scheduled to

discuss the EPA draft workplan and correlation to the TOWG draft workplan.

DECISION: The April meeting minutes were accepted.

MINUTES

<u>Updates on TOWG and EPA Workplans</u> – Evan Branosky

- TOWG workplan is still progressing, with comments from last month's conference call now incorporated
- Recent changes to the document include:
 - MS4 permits acquiring credits was a topic deemed too early to discuss; therefore, modeling tools for storm water will be examined instead.
 - Nick DiPasquale recommended addressing storm water issues in this initial stage of the workplan. Offset performance will be discussed at next month's meeting to align with this suggestion.
 - EPA workplan is being formed by steps to define the Trading and Offsets Program.
 - Draft EPA workplan is ready for review.
 - Face to face meeting with EPA is being scheduled next month to discuss and evaluate the draft.
 - Potential TOWG members to comprise this review panel include:
 - Beth McGee, CBF
 - Randy Greer, DE DNREC
 - George Kelly, Environmental Banc & Exchange
 - Joe Maroon, Maroon Consulting
 - John Rhoderick, MDA
 - Glynn Rountree, NAHB
 - Andy Zemba, PADEP or Nicky Casey, PADEP
 - Russ Baxter, VADEQ
 - Teresa Koon, WVDEP or Dave Montali, WVDEP
 - Evan Branosky, WRI

• Discussion:

- o McGee DC representation on the review panel for the EPA draft workplan?
 - George Onyullo and Moshin Siddique were suggested as potential members.
- o Baxter Possibility of VA DCR involvement.

 Branosky – Preference of 1 representative / state; therefore, no need to include all state agencies.

ACTION: George Onyullo, DDOE, or Moshin Siddique, DC Water, will be contacted regarding participation on the review panel.

ACTION: Face to face meeting with EPA staff and review panel participants will be scheduled to discuss the EPA draft workplan and correlation to the TOWG draft workplan.

- Raub: In the TOWG workplan, mention of a summer/fall workshop. Topic suggestions for the workshop: the technical and policy issues involved with determining the "life" of a credit.
 - Snell-Zarcone Another topic suggestion of discussing the "averaging" of credits
 - Branosky First step is to review the EPA workplan, then will move forward with the plans for a workshop. As the idea of "averaging" has come up in the TOWG workplan, will follow up on the subject with Kim Snell-Zarcone.

Review of 4/18/12 Meeting Minutes – Evan Branosky

DECISION: The April meeting minutes were accepted.

Review of "Nutrient Credit Trading for the Chesapeake Bay: An Economic Study" - Jack Frye

- First presentation of the document, and TOWG input would be appreciated
- The topic of trading is polarizing. Numerous and diverse opinions, but many long-term uncertainties remain.
- Purpose of the study was the idea of potential savings through trading, a critical component to determine potential value and success of trading programs.
 - o Cost saving estimates conservatively made.
 - o Evaluation of exisiting or future programs was not within the scope of the study.
- The presence of the TMDL provides the concept of the enforceable cap with a set threshold that must be maintained.
- Evaluation of the magnitude of programs must be conducted to assure validity and effectiveness.
- Slide 7, Summary of Findings:
 - Graph 1(Potential Cost Savings from Nutrient Credit Trading): Greatest saving occurred through a trading scenario including significant point sources, agricultural non-point sources, and urban storm water.
 - Geographical scale (in-basin state; in-basin; watershed-wide) of trading market shown not to greatly impact magnitude of cost savings.
 - Graph 2 (Potential Cost Savings from Trading to Offset New Loads): Savings shown include considerations of monitoring and verification costs.
 - o Baldwin What would be offset?
 - Frye Wastewater facilities above capacity. Estimation method of identifying where growth was most likely to occur.
 - Stormwater not included in offsets

- On Chesapeake Bay Commission website, see study appendix for further detail of methodology.
- Slide 10, Market Restrictions:
 - o Baseload = 2010 load or less
 - Determination of existing tradable load: very conservation numbers were chosen in the study that were based on Phase 1 WIPs, applied to land-use, and remaining load used to determine potential for trade/credits.
 - Major tidal segments
 - Costs/loads annualized
 - o 2:1 Trading Ratio of SW or PS : Agriculture BMP
 - Includes factors of weather and other uncertainties with Ag BMPs
 - 38% transaction cost on Ag BMPs. No additional transaction costs for PS due to existing permitting practice
 - Estimated transaction costs allows for verification and monitoring activities
 - Indicates the cost associated with the BMP, not the cost of load reduction
 - Foster How was 38% figure determined?
 - Frye Evaluation of existing programs (e.g. EQUIP and other costshares) allowed for this overarching estimate for all Ag BMPs and includes proper installation, O&M costs.
 - McGee Previous studies have arrived at similar figures. Believes 38% to be reasonable approximation.
 - Maximum of 25% land retirement establish due to jurisdictional concerns of maintaining cropland production
 - Simpson Geographic scale of 25% figure?
 - Frye Segments in the Watershed Model
 - Finds cap on land retirement problematic as should be driven by market value (like unrestricted development) rather than regulation.
 - Baxter Just assumption included in the study
 - EPA's rulemaking process on SW/MS4s are included in the market restriction numbers, based on existing regulated SW.
- Slide 13, SigPS: See "Appendix A" on Chesapeake Bay Commission website for further methodology information.
- Slide 14, Ag and Urban SW BMPs:
 - o Branosky For practices implemented that create the offsets, what is the length of time that these are assumed to be implemented and effective?
 - Frye Implementation is assumed to be ongoing.
 - O Devereaux Where are the costs incurred by states for designing, planning, etc. considered?
 - Frye Included in 38% transactional costs
- Value of the report: identifies potential value of establishing trading markets and demonstrates scale and sectors that would allow for most cost savings.
 - O Simpson Does the report consider net economic change (e.g. job creation)?
 - Frye Those considerations were not within the scope of the report, but interesting factors for another study.

- Berger This would be very complicated analysis due to multi-sector involvement (e.g. shifts in types of employment rather than solely job creation)
- Slide 20, Cost of Meeting SigPS AND Regulated Urban Stormwater Load Reduction Targets:
 - Inclusion of storm water load reductions causes much greater expense of no-trading baseline; therefore, trading achieves potentially very large cost reduction.
 - Geographic scale does not have large impact
- Final Considerations:
 - o Idea of establishing a "common currency" (e.g. Euro metaphor) and common baselines to allow for trade between localities, states.
 - Marchetti other idea of establishing an "exchange rate."
 - Implementing watershed-wide trading market may spread risk, increasing marketability of trading credits. Possibility that cost/benefit of broader geographic market may be greater than the report indicates.
 - Remaining issue: if water quality improvements are seen outside a locality/jurisdiction involved with trading, will they be less inclined to be involved?
 - Hoerr Considerations should be made for private technologies that incur costs and still sell credits. These technologies can also have secure verification and efficiency measurements.
 - Potential for private technological involvement. As demand increases, solutions that are cheap and verifiable may become apparent.
 - Rhoderick This report recognized the guidelines established within the existing state trading programs (PA, MD, VA, WV).

Chesapeake Assessment Scenario Tool – Olivia Devereux

- Demonstrated MAST (MD Assessment Scenario Tool) due to the tool's ability to show urban data in finer detail.
- If endeavoring to establish trading of MS4s, loads and load reduction due to BMP implementation must be estimated.
- Scale must be considered, as MAST/CAST are based on the Watershed Model which uses landriver segments, not political boundaries
 - Therefore, the tool is not the perfect answer for MS4 evaluation, but can identify effective BMPs and available loads for trading.
 - The development of a tool ~NutrientNet (which is able to evaluate at large scale, field by field basis) is needed for establishing urban stormwater trading.
- MAST Demonstration: MASTONLINE.ORG
 - Add new scenario and fill in information. 2010 land-use is the basis for the Watershed Model.
 - Urban BMP 2025 Statewide WIP 1 Scenario
 - Select BMPs e.g. Urban tree planting
 - 2025 BMPs listed in 2025 WIP 1 with amounts in %. Editing is possible to change amount as desired.
 - Calculate summary: shows change in acres; shows total loads, but not change between scenarios.

- Scenario list: allows for scenario comparison
 - E.g. choose: 2010 progress run (current on-the-ground); 2025 WIP (if WIP loads achieved, eligible to trade); scenario just created (urban tree planting)
 - Illustrates lbs potentially tradable due to BMP implementation; however, landriver segment scale used is not compatible with trading needs.
- Foster Frustration in small municipalities with MAST application. Reasons for lack of NutrientNet tool that could be applied to small urban areas?
 - Devereux This can be developed, but resources for the development are needed.

• Discussion:

- O Hoerr Does the tool have the ability to calculate costs?
 - Devereux Implementing this function, which should be available by the end of the summer. Calculates cost/acre, but could also include cost/lbs reduced.
- Marchetti Considerations of loading reductions due to CSO land?
 - Devereux CSOs considered separately as CSS load
- o Baldwin Difference between tree planting and forest conservation BMPs?
 - Devereux MD asked for the distinction. All BMP definitions available in documentation.

Jurisdictional Updates

- Round robin question will be delayed until next meeting.
- PA Updates: No updates at this time.
- MD Updates John Rhoderick
 - Agricultural Nutrient and Sediment Credit Certification Program through legislation, signed into law
 - o "Accounting for Growth" white paper
- DE Updates: No updates at this time.
- VA Updates Russ Baxter
 - o Bill (VA Senate Bill 407), which expands nutrient trading program, signed into law
 - o State study on trading ratios ongoing
- WV Updates Dave Montali
 - Pending case-by-case offset will be released soon, increasing manure export offset transactions using NPDES program.
- DC Updates: No updates at this time

PARTICIPANTS

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